

3S-CHL Chlorophyll Sensor

Compact online sensor for chlorophyll determination

APPLICATION FIELDS

- Determination of chlorophyll in water as a method to estimate and monitor the total concentration of algae in rivers, lakes, ponds, sea water, marine surveys, aquaculture, drinking water sources and other fields of algae and phytoplankton monitoring.



ADVANTAGES / FEATURES

• **Compact design, sturdy build**

Great responsiveness in a small volume. The probe can be easily installed directly in tanks, ponds, reservoirs or inside the dedicated circulating vessel.

The titanium enclosure makes the sensor robust and durable even in the most challenging environments.

• **Low operating costs**

Minimum maintenance necessary thanks to the automatic cleaning wiper.

No reagents or filling solutions are needed.

• **Wide measuring range, low detection limit**

Determination range up to 500 µg/l.

• **Measurement principle**

The sensor is based on the fluorescence photometric determination of chlorophyll dissolved in water. The external probe is installed in a sample reservoir and measurements are taken on the circulating sample flow.

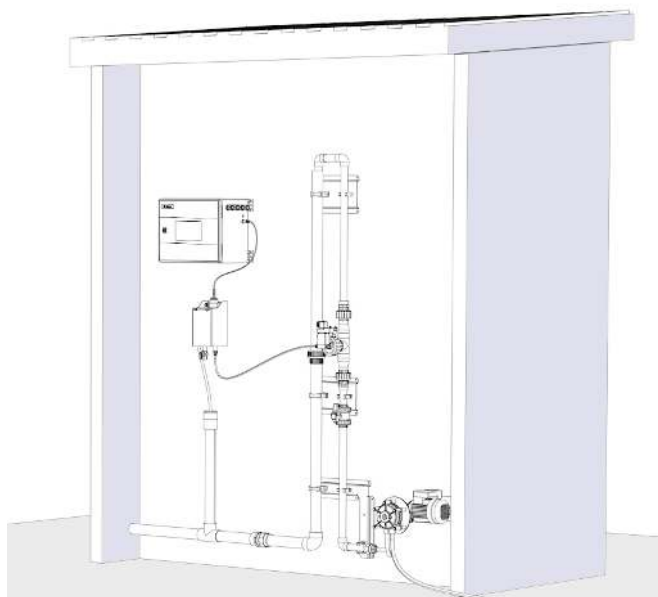
• **Easy installation**

The sensor can be installed in a flow cell or with an immersion pole/pipe directly in the sample tank.

TECHNICAL SPECIFICATIONS

Measured parameters	Chlorophyll
Measuring principle	Fluorescence photometry.
Measuring range	0 - 500 ppb (µg/l)
Resolution	0.01 ppb (µg/l)
Accuracy	±5% or 0.5 ppb (µg/l)
Analysis Frequency	≥ 1 s
Sample	Pressure-free vessel (up to 3 bar) Temperature: 0 - 50 °C (32 - 122 °F)
Dimensions	Ø 36 mm, L 198.2 mm
Weight	Approx. 1 kg (2.2 lbs)
Body Material	Titanium
Power Supply	Voltage: 5 - 12 VDC Power consumption: max. 0.5 VA
Output	Modbus via RS485
Alarms	2 SPDT programmable potential free relays
Operating temperature	0 - 50 °C (32 - 122 °F)
Installation	Flow cell or immersion pipe.
Protection Grade	IP68

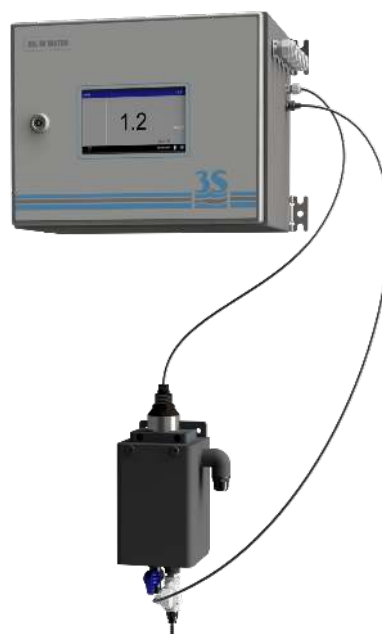
INSTALLATION EXAMPLE



The analyzer is easily installed in a minimum amount of wall space.

In the picture are included the optional accessories:

- a) 3S-PC1000 probe controller
- b) A46SF10020 - Filtration unit 100 micron 230 VAC
- c) A46SPP0000 - Sampling Pump



3S-CHL installation with 3S-PC1000 controller, ABS probe holder and flow sensor.

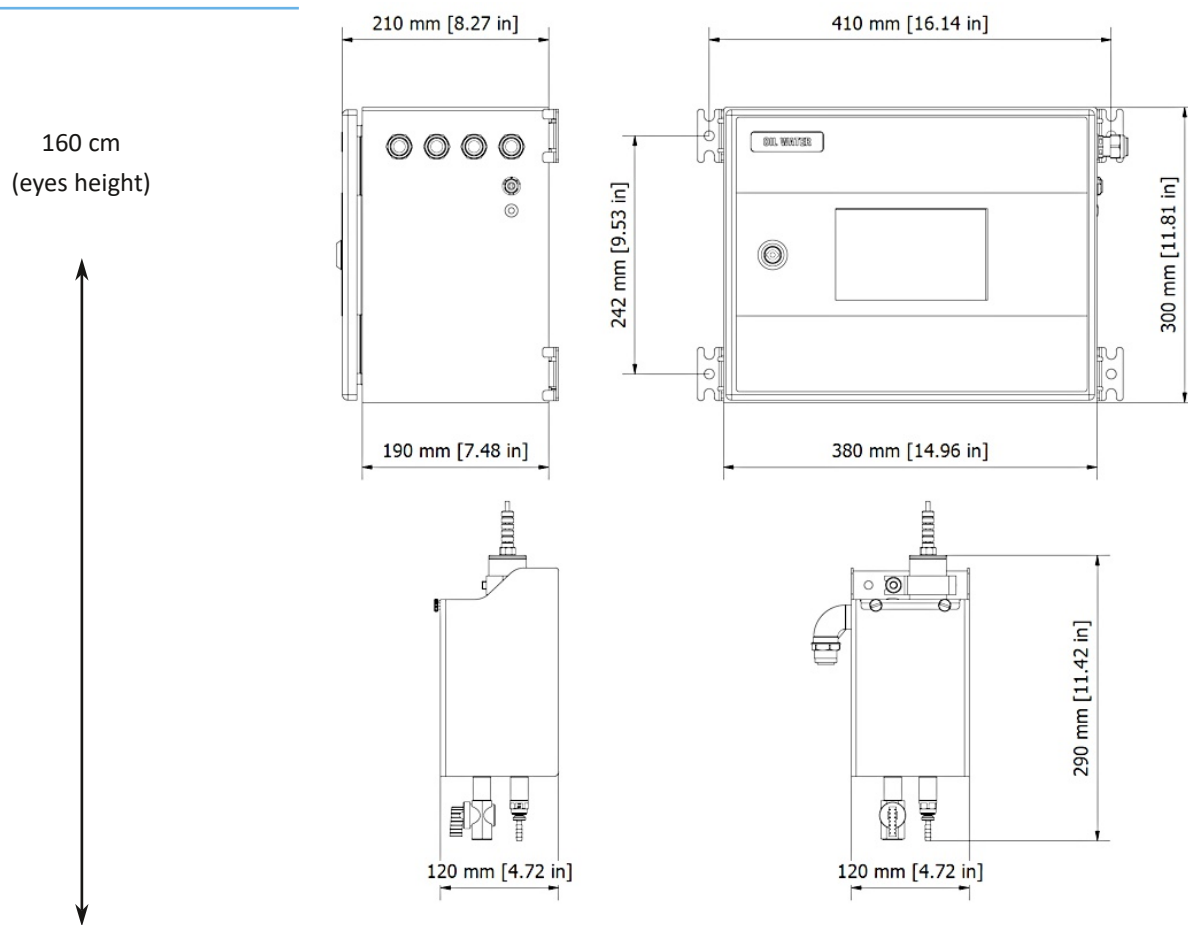
Please see the 3S-PC1000 manual for reference.

FAST LOOP RESERVOIR WITH PROBE



The probe can be installed in the Fast Loop sample reservoir, protected from external light and easily accessible for cleaning and maintenance.

TECHNICAL DRAWINGS



PRODUCT CODES

A46U10007	3S-CHL chlorophyll sensor made of titanium
3S-PC1000	Probe controller with color touch screen
A46ERLSPVC	PVC continuous flow D.36 sensor holder